

Easy-Hold Glove for Mud Pans

The Problem

A mud pan full of drywall compound can weigh more than five pounds. Continuously gripping the pan can put a lot of stress on your hand, wrist, and forearm. If the mud pan is too wide for your hand, you have to squeeze its sides to hold it, putting more strain on your forearm muscles.

The smooth sides and bottom on a mud pan make it hard to grip with bare hands. Because of its weight, size, and smoothness, you must use a lot of hand force to hold the pan.

All these types of strain can tire your hand, wrist, arm, and forearm. If you do drywall work often and for long periods of time, the strain may lead to serious injuries.

One Solution

Use an **easy-hold glove** attached to the mud pan, which you can make yourself. The glove cuts down on the hand strength required to grip the pan. With the glove, all you need to do is balance the pan.

How It Works

The glove is bolted to the pan with a swivel mount. A bolt is welded to the bottom of the pan, and held by a nut inside the glove. This holds the pan in place. You never have to squeeze the pan. Because of the swivel mount, you can spin the pan in your hand

Problem: Holding mud pan without glove



Solution: Holding mud pan with glove



Glove assembly



as needed. The glove fits snugly on your hand. A Velcro® strap holds it in place. The glove spreads the weight of the pan over your whole hand. You need only to open your hand wide to balance the pan. The pan swivels easily.

Benefits for the Worker and Employer

Finishers who used the easy-hold glove liked it and said it was great for long periods of coating drywall. They said that it cut down on their long-term fatigue and pain. Researchers found that wearing the glove led to a 25% reduction in grip force needed to hold the pan.

There are some drawbacks. Finishers said that it takes time to put the glove on and take it off. Other tasks, such as putting up tape, cannot be done while wearing the glove.

Approximate Cost

If you make your own easy-hold glove (see section below), the cost of materials is low. You can begin with a fingerless bicycle glove, available for \$5–20.

To make your own: Use a tight-fitting glove with a stiff palm, such as a fingerless bicycle glove. Make sure the glove is not so tight that it affects blood circulation in your hand. But if the glove is too loose, you will end up gripping the mud pan tighter. A glove without fingers lets you use your own fingers more easily. However, it also makes the glove a little harder to take off, because the finger holes can get caught on your knuckles.

Fix the head of a small bolt to the bottom of the mud pan. You can weld the bolt or “glue” it using a metal-to-metal adhesive. Place a large (up to two-inch) washer on the bolt. Punch the bolt through the palm of the glove. Inside the glove, place another large washer over the bolt that sticks through. Tighten a lock nut over the bolt inside the glove. Cut off any part of the bolt that sticks above the nut and sand the bolt smooth. If the bolt still presses on the palm of your hand inside the glove, cover it with duct tape or another material.

For More Information

- Products related to this solution are described at www.cpwr.com/simple.html.
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- For general information on this solution, check www.cpwrconstructionsolutions.org and www.elcosh.org.